BEGIN

REEL # 173

FROM
GUGEL', I. YA.

GUGEL', I.Ya., inzh.; PES
FILIPPOV, I.F.,

Study of the cooli
cooling. lektrotek

CIA-RDP86-00513R000617310001-2"

Gugel', L.

USSR/ Electronics - Electrical detectior

Card 1/1		Pub. 89 - 25/27
Authors	:	Gugel', I.
Title	:	A simple oscilloscope
Periodical	:	Radio 1, 59-61, Jan 1955
Abstract	:	A description is given of a simple oscilloscope, the construction and adjustment of which is intended to be within the capacity of amateur radio operators. The technical specifications are presented along with directions for constructing the apparatus and adjusting it. Illustrations; schematic drawing.
Institution	:	....
Submitted	:	....

GUGEL', S.M., inzh.

Factory repair base for diesel locomotives. Zhel. dor. transp. 39 no.12:76-77 D '57. (MIRA 11:1)
(Diesel locomotives--Maintenance and repair)

KISLIK, V.A., prof., doktor tekhn.nauk (Rostov-na-Donu); GUGEL', S.M.,
inzh. (Rostov-na-Donu)

Use of nitriding for reconditioning fuel system components.
Elek.i tepl.tiaga. 4 no.6:26-28 Je '60. (MIRA 13:8)
(Diesel engines--Fuel systems)
(Fuel pumps--Maintenance and repair)

GUGEL', S. M., Cand Tech Sci -- "Increas~~e~~ing ~~of~~ the service life of ~~period~~ of the fuel-equipment precision vapors of Diesel locomotives." Len, 1961. (Min of Railways ~~Transport~~ USSR. Lenin Order of Lenin Inst of Engineers of Railroad [illegible] Transport im Acad V. N. Obraztsov) (KL, 8-61, 242)

20525

9.8300
9.6100

S/115/61/000/001/002/007
B129/B201

AUTHOR: Gugel', S. M.

TITLE: Inductive transmitter for measuring rapidly changing pressures

PERIODICAL: Izmeritel'naya tekhnika, no. 1, 1961, 20-21

TEXT: An inductive high-pressure transmitter has been constructed for studying the pressure change in fuel supply systems of internal combustion engines. Up to now inductive transmitters have not been used for measuring high, rapidly changing pressures. Hence, the positive results obtained with their application are of certain interest. The transmitter (Fig. 1) consists of two ringshaped central parts (9) which are produced from transformer iron. Wire coils (10) of a diameter of 0.2 mm with 220 windings are fastened to the central parts. One of the central parts is placed on the lid (8) of the transmitter. This lid has two openings to adjust the distance between the central parts. The other central part is fastened to the magnet holder (7) which is separated for the introduction of the transmitter. The magnet frame (5) is inserted between these two central parts. It is connected with the membrane (4) which is fastened between the fuel tank and the counterring (6).

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20525

Inductive transmitter ...

S/115/61/000/001/002/007
B129/B201

The high-pressure chamber is hermetically sealed by copper shims. After the complete assembly of the transmitter the position of the magnet frame is adjusted such that the distances between frame and the upper and lower central parts are equal. This is achieved by adjusting the upper and lower central part: the upper one is adjusted by shims and the lower one by adjusting screws. The equal distances warrant equal electrical currents flowing through the coils. As a result of their opposite direction the indicator (oscilloscope or milliammeter) indicates zero. Due to the effect of pressure on the elastic membrane the magnet frame rigidly connected herewith is displaced. Due to the displacement of the frame from the zero (neutral) position a current passes the membrane whose amount and direction depends on the bending of the membranes, i.e., on the pressure in the tube. Thus, the rapidly changing pressures can be measured. There are 2 figures.

Legend to Fig. 1: scheme of the inductive
high-pressure transmitter 1) fuel tank
2) bolt with nut 3) shims 4) membranes
5) magnet frame 6) counterring 7) magnet holder
8) lid 9) central part 10) coil 11) adjusting screw

Card 2/4

KISLIK, V.A., doktor tekhn.nauk, prof.; GUGEL', S.M., aspirant

Lengthening the service life of the fuel system parts of diesel locomotive engines. [Sbor.trud.] RIIZHT no.31:28-214 '61.
(MIRA 16:12)

GUGEL', S.M.

Investigating the wear of precision parts of diesel engine fuel systems and the methods for the reconditioning of parts. Tren. i izn. v mash. no.17:80-95 '62. (MIRA 17:10)

GUGEL', S.M.

Optimum conditions for the heat treatment of 1Kh18N12M2TL steel. Metalloved. i term. obr. mot. no. 12:37-40 D '65. (MIRA 18:12)

1. Rostovskiy-na-Donu nauchno-issledovatel'skiy institut tekhnologii mashinostroyeniya.

L 04055-67 EWT(m)/T/EWP(w)/EWP(t)/ETI IJP(c) JD/WB

ACC NR: AR6026313 SOURCE CODE: UR/0277/66/000/004/0013/0013 38

AUTHOR: Gugel', S. M.; Fishteyn, B. M.; Koltunova, Ye. P. 16 B

TITLE: Investigating the effect of initial structure and heat treatment conditions on the corrosion resistance and mechanical properties of acid-resistant 1Kh18N12M2TL sheet steel

18 18 18

SOURCE: Ref. zh. Mashinostr mat konstr i raschet detal mash. Gidropr, Abs. 4.48.99

REF SOURCE: Sb. rabot Rostovsk.-n/D. n.-i. in-ta tekhnol. mashinostr., vyp. 11, 1965, 138-149

TOPIC TAGS: steel structure, ~~metal heat treatment,~~ corrosion resistant steel, sheet metal

ABSTRACT: The authors study the effect which various heat treatment conditions and the structures characteristic for each set of conditions have on the mechanical properties of 1Kh18N12M2TL steel. It is found that the optimum hardening temperature for sheet components made from 1Kh18N12M2TL steel is 1150°C with a holding time of 2 hours. The rate at which the components are heated does not have any considerable effect on the change in structure and properties of sheet steel heat treated at optimum temperatures and holding time. [Translation of abstract]

SUB CODE: 11

kh

Card 1/1 UDC: 669.14.018.8:620.193

GUGEL', V.

New city on the Volga. Na stroi.Ros. no.3:21-23 Mr '61.
(MIRA 14:6)
(Volzhskiy—Construction industry)

GUGEL', V., arkhitektor; PERTSIK, Ye., inzh.-ekonomist

District planning in the Kuznetsk Basin. Na stroi. Ros. 3 no.5:11-13 My '62. (MIRA 15:9)
(Kuznetsk Basin—Regional planning)

GUGEL', Veniamin Naumovich; TORGOVNIK, Rakhil' Markovna; FLORINSKIY, I.I., red. izd-va; GRECHANINOVA, A.A., tekhn. red.

Volzhskii. Red. kollegiia: P.V. Abrosimov i dr. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1958. 24 p. (MIRA 11:7)

1. Soyuz arkhitektorov SSSR.
(Volzhskiy--Description)

GUGEL, YU.S.,

BORODYANSKIY, I.A., inzhener; GUGEL', Yu.S., inzhener.

Adjusting electromagnetic voltage stabilizers on 100-Mw turbogenerators. Elek.sta. 27 no.9:56-58 S '56. (MLRA 9:11)
(Voltage regulators)

GUGEL', Yu.S., inzh.; ADAM'YANTS, T.I., inzh.

Experience in the installation of the electrical equipment of 300 Mw. blocks. Energ. stroi. no.1:76-81 '65. (MIRA 18:7)

GUGELEV, Boris Moiseyevich, inzh.; LEVINA, Ye.Ye., kand. tekhn. nauk,
red .REGER, D.P., red.izd-va; BELOGUROVA, I.A., tekhn.red.

[High-temperatute vacuum metallography for the investigation of heat-resistant materials] Primenenie vysokotemperaturnoi vakuumnoi metallografii dlia issledovaniia zharoprochnykh materialov. Pod red. E.E.Levina. Leningrad, 1962. 23 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Metallovedenie i termicheskaia obrabotka, no.7)
(MIRA 16:2)

(Heat-resistant alloys--Metallography)
(Vacuum metallurgy)

ACC NR: AP7006936 (A) SOURCE CODE: UR/0129/67/000/001/0002/0005

AUTHOR: Levin, Ye. Ye.; Gugelev, B. M.

ORG: TsKTI im. Polzunov

TITLE: Nature of the variation in high-temperature ductility of precipitation-hardened alloys

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 1, 1967, 2-5

TOPIC TAGS: precipitation hardening, ductility, nickel base alloy

ABSTRACT: The authors study the mechanism of deformation and fracture in KhN80TBYu nickel alloy with the following composition: 0.03% C, 0.51% Si, 0.62% Mn, 16% Cr, 1.49% Ti, 1.48% Nb, 0.76% Al, 1.02% Fe, 0.008% S and 0.006% P. The metal structure contains a considerable quantity of precipitation hardening phase (10% by volume) of the Ni(Ti, Al) type after heat treatment at 1000°C 2 hr+900°C 1 hr+800°C 2 hr+750°C 48 hr+700°C 48 hr. The size of the hardening phase in the grain is 0.03-0.04 μ and along the boundaries is 0.2-0.4 μ. The experimental results show that intergranular slip in alloys of this type is not a unique function of temperature. Intergranular slipping increases with temperature up to the beginning of coagulation and dissolution of the precipitation phase (first maximum). Intergranular slip decreases in the coagulation and dissolution region. When the precipitation phase is completely dissolved,

UDC: 669.14.018.85:539.214

Card 1/2

ACC NR: AP7006936

intergranular deformation again increases with temperature (second maximum). The formation and degree of development of intergranular cracks during deformation is determined by the extent to which the grains slip with respect to one another. Maximum slippage coincides with maximum damage. The ductility of the metal increases with grain migration during high-temperature deformation. Two maxima in ductility are observed during high-temperature deformation of precipitation-hardened alloys. Each of these maxima is associated with a maximum in the development of intergranular slip. Orig. art. has: 2 figures.

SUB CODE: 11/ SUBM DATE: None/ ORIG REF: 008/ OTH REF: 001

Card 2/2

ACCESSION NR: AT4013965 S/2659/63/010/000/0275/0283

AUTHOR: Levin, Ye. Ye.; Gugelev, B. M.

TITLE: Kinetics of the deformation of biphasic cast alloys investigated by the method of high-temperature metallography

SOURCE: AN SSSR. Institut metallurgii. Issledovaniya po zharoprochny*m splavam, v. 10, 1963, 275-283

TOPIC TAGS: high temperature alloy, casting, biphasic alloy, alloy deformation, power equipment, deformation kinetics, metallography, shear, polygonization

ABSTRACT: Modern power equipment requires heat-resistant materials which are easily machined and reliable when working. The present investigation describes the vacuum metallographic method of studying the deformation of 11% chromium-martensite-ferrite and chromium-nickel austenite-ferrite steel castings. It was found that in the process of deformation of chromium steel the visible shear lines and the shear proper are along the martensite flakes and their length may be compared with the length of the martensite crystals. Second, the grains of free α (δ) ferrite are strained along smoothly bending interference lines. Only under high strain are separate shear lines observed in the α (δ)-ferrite. Third, this deformation of free α (δ)-ferrite shows that it is the main process

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ACCESSION NR: AT4013965

strengthening the steel. Fourth, rupture at a high degree of deformation is developed very slowly and has little effect on steel failure. Fifth, in contrast to chromium steel, the lines in the austenite phase during the deformation of biphasic austenite-ferrite steel develop linearly. Sixth, deformation is accompanied by polygonization of the austenite grains. During the initial deformation the shear between the grains is along the boundary perpendicular to the tensile axis. Orig. art. has: 2 formulas and 6 figures.

ASSOCIATION: Institut metallurgii AN SSSR (Institute of Metallurgy AN SSSR)

SUBMITTED: 00 DATE ACQ: 27Feb64 ENCL: 00

SUB CODE: MM NO REF SOV: 003 OTHER: 001

Card 2/2

34540
S/659/61/007/000/028/044
D217/D303

18.9700

AUTHORS: Levin, Ye.Ye., and Gugelev, B.M.

TITLE: Applying the technique of high temperature vacuum metallography

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Issledovaniya po zharoprochnym splavam, v. 7, 1961, 245 - 249

TEXT: A number of examples are described which illustrate the main directions in which high-temperature vacuum metallography is applied at the TsKTI. Ye.M. Pivnik and Ye.N. Masaleva participated in this work. A study of the deformation of nickel base alloys, carried out at 760° and 900°C for fracture times of 0.5 to 14 hours, has shown that during deformation intercrystalline cracks begin to develop from the surface. Gradual polishing-away of successive layers of the deformed specimens, in which cracks had developed which did not extend throughout the section, has shown that the number of cracks decreases considerably on reaching the inner layers of the metal, but the nature of the cracks remains the same. Microcracks form main-

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S/659/61/007/000/028/044
D217/D303

Applying the technique of high ...

ly along the grain boundaries, the initial opening-up of the boundary proceeding intermittently. In the deformation of specimens of variable grain size at 760°C, the first intergranular cracks form and propagate, as a rule, in the regions of coarser grains and along the boundaries between grains of different size. In order to study the influence of grain size on the nature of intergranular cracks forming during deformation, two specimens of varying grain size were investigated at 700°C at approximately identical rates of deformation (time to fracture approximately 3.5 hours). It was found that deformation of fine-grained metal was accompanied by formation of a large number of fine cracks, whereas in coarse-grained material, individual cracks of considerable length developed. Meeting points of three grains can act not only as points of crack formation, but also as obstacles to their propagation. A study of the kinetics of surface crack development during creep (900°C, time to fracture, 15 hours) has shown that opening-up of grain boundaries occurs at the very beginning of the second stage at meeting points between three grains. Hence, the number and size of cracks continue to grow during the entire deformation process until fracture occurs. X

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L 15659-65 EWT(m)/EWP(w)/EWA(d)/EWP(t)/EWP(b) ASD-3/AFFTC/ASD(m)-3 MJW/JD/HLK

ACCESSION NR: AT4046857 S/0000/64/000/000/0291/0298

8+1

AUTHOR: Levin, Ye. Ye. ; B. M. Gugelov

TITLE: Effect of structure on the deformation and failure of EI-402M austenitic-ferrite heat-resistant cast steel

18 18 18 18

SOURCE: AN SSSR. Nauchny*y sovet po probleme zharoprochny*kh splavov. Issledovaniya staley i splavov (Studies on steels and alloys). Moscow, Izd-vo Nauka, 1964, 291-298

TOPIC TAGS: austenitic steel, austenite ferrite steel, heat resistant steel, cast steel, steel structure, steel plasticity/steel EI-402M

ABSTRACT: Two EI-402M steel melts, with 0.08% C, 0.31 and 0.57% Si, 4.44 and 3.71% Mn, 19.4 and 17.6% Cr, 10.3 and 10.67% Ni, 1.16 and 1.04% Mo, 0.02 and 0.01% S, and 0.015 and 0.021% P, respectively, were used in a study of structural changes associated with phase transformations occurring during the deformation of austenitic-ferrite steels. A high-temperature vacuum IMASh-5U unit was used to produce deformation, at 20-1150C and varying stretching rates, in samples of 3 x 3 mm working cross section, normalized at 1180C for 8 hrs, tempered from 750C for 10 hrs, and chemically polished. Qualitative

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L 15659-65
ACCESSION NR: AT4046857

observation of structural changes was made with an MVT high-temperature microscope, and an MII-4 interferential microscope was used for the quantitative analysis and photography. From the results obtained, it is concluded that: a) the density of visible slide traces in austenite kernels is proportional to the total amount of deformation; b) the mean displacement along a slide strip increases in proportion to test temperature, reaching maxima of 0.06μ at 20C, 0.12μ at 650C, and 0.17μ at 900C; c) at 950C and beyond, visible slide traces occur only at deformation of 12-15% and above; d) samples containing 8-10% ferrite develop cracks primarily in the kernels of disintegrated ferrite, during comparatively short tests at temperatures below 700-750C, a ferrite phase of less than 3% having no crack-promoting effect at all; and e) at 800C and above, the plasticity of kernels of a decomposed ferrite sharply increases. "I. S. Mel'nikova took part in the electron microscopic studies." Orig. art. has: 4 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 16Jun64 ENCL: 00 SUB CODE: MM

NO REF SOV: 009 OTHER: 002

Card 2/2

Gugerel, K.

Gugerel, K. The metal sieve of a paper machine, its production and and operation. Tr. from the German. p.172.

Vol. 11, No. 8, Aug. 1956
PAPIR A CELULOSA
TECHNOLOGY
Czechoslovakia

So. East European Accessions, Vol. 6, No. 5, May 1957

L 8777-65 EWT(l)/EPA(s)-2/EWG(k)/EWT(m)/EPF(c)/EWP(j)/T Pz-6/Pc-4/Pr-4/
Pt-10 IJP(c)/RPL/RAEM(t)/ESD(dp)/ESD(t)/AFWL/ASD(a)-5 AE/RM

ACCESSION NR: AP4045801 S/0062/64/000/009/1703/1705

AUTHOR: Gugeshashvili, M. I.; Davy*dov, B. E.; Korshak, Yu. V.; Rozenshteyn, L. D.

TITLE: Interruption on conjugation in linear polymer 7 backbone by hetero atoms with unshared electrons

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 9, 1964, 1703-1705

50

TOPIC TAGS: organic semiconductor, semiconducting polymer, conjugated polymer, heterorganic polymer 21

ABSTRACT: A study was undertaken to determine the effect of hetero atoms in the backbone of polyazines 7 investigated earlier on the activation energy for conduction. Diketones 7 (monomers of polyazines) were used. Absorption spectra of bis(4-acetylphenyl) ether or sulfide, polyazines based thereon, ethylenedioxybis(4-acetylbenzene), and [oxybis(ethyleneoxy)]bis(4-acetylbenzene) were recorded. Comparison of these spectra showed that conjugation is interruped by the oxygen or sulfur atoms in the monomers and the polymers. Measurements of the temperature dependence of conductivity were carried out for

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L 8777-65

ACCESSION NR: AP4045801

2

sublimed thin-filmed samples of the diketones in air and vacuum, and compared with such data for 4, 4'-diacetylbiphenyl, which is free of hetero atoms. It was concluded that the high activation energies for conduction are due to interruption of conjugation by the hetero atoms. Orig. art. has: 3 figures and 3 formulas.

ASSOCIATION: Institut poluprovodnikov Akademii nauk SSSR (Institute of Semiconductors, Academy of Sciences SSSR); Institut neftekhimicheskogo sinteza Akademii nauk SSSR (Institute of Petrochemical Synthesis, Academy of Sciences SSSR)

SUBMITTED: 30Jan64 ATD PRESS: 3111 ENCL: 00

SUB CODE: SS, MT NO REF SOV: 003 OTHER: 002

Card 2/2

GUGESHASHVILI, Sh.I.

[Electrophoresis of proteins of blood serum on paper in clinical laboratories] Elektrofores belkov syvorotki krovi na bumage v klinicheskoi laboratorii. Tbilisi, Grusmedgis, 1957. 30 p. (MIRA 12:3)

(BLOOD PROTEINS) (ELECTROPHORESIS)

GUGESHASHVILI, Sh.I.

Physiological interrelationship between fluid and solid substances in the human body. Soob. AN Gruz. SSR 31 no.1: 171-178 Jl '63. (MIRA 17:7)

GUGESHASHVILI, Sh.I.

Fluctuation of the relationship between fluid and solid substances of the body in Botkin's disease. Soob. AN Gruz. SSR 31 no. 3:729-736 S '63. (MIRA 17:7)

YUGOSLAVIA (Macedonia) / Cultivated Plants. Cereal Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58538

Author : Gugevchevskiy, Mikhail
Inst : Not given
Title : Italian Wheat Varieties and Their Productivity

Orig Pub : Sots. zemjodelstvo, 1957, 9, No 7-8, 23-32

Abstract : No abstract given

Card 1/1

GUGIC, P.

GUGIC, P. Photoelectric colorimeter of domestic construction. p. 27

Vol. 4, no. 2, Feb. 1955
KEMIJA U INDUSTRIJI
TECHNOLOGY
Croatia

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EEAL), LC, VOL, 4, no. 9
Sept. 1955

GUGIC, P.

Apparatus for the measurement of the radioactivity of excreta from small animals. Prim. radioaktiv. izotop. 2 no.3:19-22 D '61.

1. Interna klinika Medicinskog fakulteta u Zagrebu -- Rebro Radioizotopni odjel.

(RADIOMETRY) (FECES)

D'YACHENKO, Nikolay Kharitonovich, doktor tekhn. nauk, prof.; DASHKOV, Sergey Nikitich, doktor tekhn. nauk, prof.; MUSATOV, Vitaliy Sergeyevich, kand. tekhn. nauk; BELOV, Pavel Mitrofanovich, kand. tekhn. nauk, prof.; BUDYKO, Yuriy Ivanovich, kand. tekhn. nauk. Prinimali uchastiye: BURYACHKO, V.R.; GUGIN, A.M.; ZHDANOVSKIY, N.S., doktor tekhn. nauk, prof., retsenzent; YURKEVICH, M.P., inzh., red. izd-va; PETERSON, M.M., tekhn. red.

[High-speed piston internal conbustion engines] Bystrokhodnye porshnevye dvigateli vnutrennego sgoraniia. Moskva, Mashgiz, 1962. 368 p. (MIRA 15:7)

(Gas and oil engines) (Diesel engines)

GUGIN, S.Ya.; OPALEV, I.I.

Plane table surveying at a 1:500 scale using checkered leveling rods with verniers. Geod.i kart. no.8:59-61 Ag '62. (MIRA 15:8)

(Surveying--Instruments)

GUGIN, V.; KUZNETSOV, N. (Voronezh)

"Voronezh" television set. Radio no.2:35-37 F '60. (MIRA 13:5)

(Television--Receivers and reception)

GUGIN, V.A.

Professor Dudley Stamp's visit to the U.S.S.R. Izv. AN SSSR. Ser. geog no.1:162-163 Ja-F '62. (MIRA 15:2)
(Stamp, Dudley)

GUGIN, V.A.

The Infromation Bulletin of the International Geographical Association No.2, 1962. Izv.AN SSSR. Ser.geog. no.6:125-126 N-D '62. (MIRA 15:12)

(Geography—Periodicals)

STEMP, D. [Stamp, D] (Angliya); GUGIN, V.A. [translator]

Planning and using land resources. Izv. AN SSSR. Ser. geog no.1:133-137 Ja-F '62. (MIRA 15:2)
(Land)

GUGIN, V.A.; LEBEDEVA, T.M.

Information Bulletin of the Moscow State University, No.1 for 1962.
Izv.AN SSSR.Ser.geog. no.3:134-135 My-Je '62. (MIRA 15:5)
(Geography--Periodicals)

GUGIN, V.A.

First circular of the 20th International Geographical Congress scheduled to take place in London, July-August, 1964. Izv.AN SSSR. Ser.geog. no.3:132-133 My-Je '62. (MIRA 15:5)
(Geography—Congresses)

GUGIN, V.A.; LEBEDEVA, T.M.

Bulletin of the Moscow University. No.1, 1963. Izv. AN SSSR. Ser. geog. no.3:126-127 My-Je '63. (MIRA 16:8)
(Moscow--Geography--Periodicals)

GUGIN, V.I., inzh., spets. red.; TABUNINA, M.A., red. izd-va; GILENSON, P.G., tekhn. red.

[Rules for safety and industrial hygiene at enterprises of the cement industry] Pravila tekhniki bezopasnosti i proizvodstvennoi sanitarii na predpriiatiiakh tsementnoi promyshlennosti. Vvodiatsia v deistvie s 1 oktiabria 1961.g. Moskva, Gos.izd-vo lit-ry po stroit., arkhit.i stroit.materialam, 1961. 90 p. (MIRA 14:12)
(Cement industries--Hygienic aspects)

KOROLEV, B.A.; KAROV, V.V.; KOCHEDYKOVA, L.V.; UTKOV, A.A.; GUGINA, G.G.

Late results of surgical treatment of mitral stenosis. Uch. trudy CMI no.19:45-52 '65. (MIRA 18:8)

1. Iz kliniki gospital'noy khirurgii Gor'kovskogo gosudarstvennogo meditsinskogo instituta imeni S.M.Kirova.

ZOTOV, V.P.; SILUYANOV, V.G.; GUGINA, Ye.F.; AUERMAN, L.Ya.; ALEKHINA, M.S.; BEZZUBOV, A.D.; BODROV, V.A.; BUDNYY, A.V.; BURTSEV, Ye.L.; VAYNSHTEYN, V.O.; GAVRILOV, A.N.; GORBATOV, V.M.; GRITSENKO, N.N.; DOLGUSHEVA, L.I.; YEDYGENOV, K.Ye.; ZHURAVLEVA. S.S.: ZACHESKIN, Ya.A.; IVKIN, A.P.; IZOTOV, A.K.; IL'INSKIY, N.A.; IRINARKHOVA, A.M.; KARPENKO, A.K.; LYSOGOR, P.M.; LUPISH, A.T.; OLEYNIKOV, V.V.; ORANZHEREYEVA, V.F.; PETROV, N.A.; PYATIBRATOV, M.A.; ROMANOV, A.N.; RAUBE, P.V.; RYZHENKO, L.P.; SEMYKIN, A.A.; SHEFER, A.P.

G.IA.Ivanov; obituary. NTO 4 no.10:39 O '62. (MIRA 15:9)
(Ivanov, Georgii IAkovlevich, 1897-1962)

GUGIUMAN, I.; DONISA, I.

Grigore Cobilcescu and his geographical activities. p. 235.

ANALELE STIINTIFICE. SECTIUNEA II: STIINTE NATURALE. Iasi. Rumania. Vol. 5, no. 1, 1959.

Monthly List of East European Accessions.(EEAI) LC, Vol. 9, no. 1, January 1960.

Uncl.

GUGIUMAN, I.; PETRAS, Eug.

Role of atmosphere dynamics and geographical factors in determining air temperature conditions in the eastern part of Rumania. Anal. St Jassy II 9:145-150 '63.

GUGIUMAN, I., prof. univ. (Iasi)

Climatologic and microclimatologic research activity in the elementary and secondary schools. Natura Geografie 15 no.6: 65-68 N-D '63.

GUGLIN, E.R.

Eryside therapy of cardiac insufficiency. Sov.med.18 no.1:11-13 Ja '54. (MLRA 7:1)

1. Iz fakul'tetskoy terapevticheskoy kliniki (ispolnyayushchiy obyazannost' direktor - professor T.S.Istamanova) I Leningradskogo meditsinskogo instituta im. akad. I.P.Pavlova.
(Heart--Diseases) (Drugs)

GUGLIN, E.R.

Use of polyglucin in the treatment of diabetic coma. Probl.i gemat. i perel. krovi 3 no.4:55 Jl-Ag '58 (MIRA 11:8)

1. Iz Stlingradskogo oblastnogo otdela zdravookhraneniya (zav. - zasluzhennyy vrach RSFSR N. P. Grigorenko).

(DIABETES MELLITUS, compl.
coma, ther., polyglucin (Rus))
(DEXTRAN, rel. cpds.
polyglucin, ther. of diabetic coma (Rus))

GUGLIN, E.R., kand. med. nauk

Results of rheumatic fever control in Stalingrad Province. Klin. med. 37 no.5:33-38 My '59. (MIRA 12:8)

1. Glavnyy terapevt Stalingradskoy oblasti.
(RHEUMATISM, prev. & control
in Russia (Rus))

N. N. Gu-Golin

SOV/24-58-4-37/39

AUTHOR: Gulyayev, B.B.

TITLE: Conference on Crystallisation of Metals (Soveshchaniye po kristallizatsii metallov)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 4, pp 153 - 155 (USSR)

ABSTRACT: This conference was held at the Institut mashinovedeniya AN SSSR (Institute of Mechanical Engineering of the Ac.Sc. USSR) on June 28-31, 1958. About 400 people participated and the participants included specialists in the fields of foundry, metallurgy, crystallography, physics, welding, heat, physical chemistry, mathematical physics and other related subjects. In addition to Soviet participants, foreign visitors included Professor D. Czikl (East Germany) and N.I. Chvorinov (Czechoslovakia). This conference on crystallisation of metals was the fourth conference relating to the general problem of the theory of foundry processes.

Crystallisation of Steel and Alloys with Special Properties. The following papers were read: V.I. Lapitskiy, N.I. Stupar', K.P. Budachev, V.L. Olekseyenko, A.I. Marinov - "Certain Methods of Reducing Non-uniformities of Large Castings (up to 20 t) made of Rimming Steel"; V.A. Novitskiy, A.B. Mikul'chin and V.V. Blinov - "Influence of Internal Crystallisers on the Structure and Properties of Steel Ingots"; N.I. Chvorinov (Czechoslovakia) - "On the Crystallisation of Steel"; A.P. Pronov - "Crystallisation of Continuously Cast Ingot and Influence on it of the Properties of

Card6/10 Liquid Steel"; L.I. Morozenskiy and O.D. Zigel' -

"Influence of Movement of the Metal in the Liquid Core on the Crystallisation of Steel Ingots and Castings"; N.N. Guglin, A.A. Novikova and B.B. Gulyayev - "Crystallisation and Mechanical Properties of Steels at Elevated Temperatures"; V.Ye. Neymark - "Influence of Inoculation on the Deformation of the Crust and the Speed of Solidification of Ingots"; G.P. Ivantsov "Thermal Stresses and Deformation in the Crust of a Crystallising Ingot"; V.G. Gruzin and F.I. Yanshakov dealt with problems of formation of the primary structure of structural steel and the influence on it of the temperature of pouring.

The features of crystallisation of castings made of alloys with special properties and of austenitic steels were dealt with in the following papers: I.I. Gorbunov - "Influence of Inoculation on the Structure and on the Physico-mechanical Properties of High-alloy Steels"; F.F. Knizhnin, F.V. Aksenov, K.F. Lashko and N.Ye. Rodina - "Occurrence of Non-uniformities in High-temperature alloys During Crystallisation and Heat

Card7/10 Treatment" and "Experimental Investigation of the Process

of Crystallisation of Cast Blades Made of Refractory Alloys"; A.M. Yuferov considered the process of recrystallisation of steel.

GUGLIN N N.

А.П.Прохоров О.Д.Молдавский Л.М.Белова Ю.С.Голубев	Влияние отдельных элементов на свойства стали в процессе кристаллизации.
М.И.Пешковский В.Д.Хвостенкова Э.Н.Титова	Влияние условий роста на структуру монокристаллов кремния.
С.Я.Скобло Е.А.Казачков В.А.Милютков	Затвердевание и неоднородность крупных стальных слитков различной конфигурации.
Е.А.Казачков С.Я.Скобло	Температурные условия затвердевания крупных стальных слитков.
Ю.П.Соловьев Б.А.Леонтьев В.В.Гуляев	Борьба с поверхностными дефектами на стальных слитках.
А.К.Прокофьев В.П.Леонов Э.К.Лебедев В.В.Гуляев	Непрерывная разливка стали в квадратные заготовки сечением 150х150 мм.
Н.Н.Гуглин А.К.Мастеров А.А.Новикова В.В.Гуляев	Исследование процесса затвердевания непрерывного слитка сечением 150х150 мм.

report submitted for the 5th Physical Chemical Conference on Steel Production, Moscow-- 30 Jun 1959.

18(5) SOV/128-59-3-12/31

AUTHOR: Smolenskiy, S.I., Guglin, N.N., Zasetskiy, G.F., Provornyy, A.K. and Tyutev, V.A., Engineers

TITLE: **Steel Molds for Large Steel Castings**

PERIODICAL: Liteynoye Proizvodstvo, 1959, Nr 3, pp 23-26 (USSR)

ABSTRACT: Metal dies for casting of large steel cast shapes are made from steel or cast iron. As demonstrated by the experiments the cast iron dies are unserviceable within short periods. Against that steel dies show far better properties. A method has been worked out to pour large shell-type castings of several tons of weight by means of the permanent die method. Special designs had to be built for this method. Pouring of the metal is done in five steps and in accordance with the design of the casting and in accordance with the technology of the die shape. The experimental method showed that within a certain time interval all types of the die designs are distorted and that hair line cracks appear on the wor-

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SOV/128-59-3-12/31

Steel Molds for Large Steel Castings

king surface. Consequently the quality of the experimental dies is judged by way of two characteristics:

a) According to the number of pourings possible till to the point of repair, when the cracks have to be eliminated;

b) To the point when the exact dimensions are lost and must be re-machined.

Several tests have been made to study the properties of the metal dies, to establish the suitable shapes and the necessary thickness of the walls. By means of tables, and photographs the results of the tests in connection with the contents of sulphur, of carbon, and in connection with the mean thickness of the walls and the point of formation of hair line cracks are published. Conclusion: Best results will be achieved with metal dies having a wall thickness of 150 to 170 mm. The steel used for the die should not have more than 0,10% carbon and not more than 0,025% of sulphur

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Steel Molds for Large Steel Castings SOV/128-59-3-12/31

Permanent Metal Dies from Steel for the Casting of Large Steel Casting Shapes

contents. There are 7 graphs and 2 photographs.

Card 3/3

GUGLIN, E.R., kandidat meditsinskikh nauk (Stalingrad)

"Principles of medicinal therapeutics". G.A. Petrovskii, A.F. Platonova-Petrovskaia. Reviewed by E.R. Guglin. Klin. med., 33 no.10: 92-94 O '55. (MIRA 9:2)
(THERAPEUTICS) (PHARMACOLOGY) (PETROVSKII, G.A.)

GUGLIN -E.-R.

Med

2

Effect of age on the development and the course of alloxan diabetes in rats. E. R. Gugin and G. V. Danilevich (I. P. Pavlov 1st Med. Inst., Leningrad). *Fiziol. Zhur. S.S.S.R.* 42, 383-8(1956).—In older rats (350 g. or more) a single intravenous injection of 50–60 mg./kg. alloxan produces a stable diabetes lasting for months. In rats of middle age (230–70 g.) single or repeated injections of 75 mg./kg. alloxan produce less stable diabetes in which the blood sugar falls to normal in 2–3 weeks. In young rats a single such injection does not produce any detectable blood-sugar-level change; at 120–30 mg./kg. dose there is a brief hyperglycemia which normalizes in a few days if the animal survives. Repeated injection of doses about 100 mg./kg. produce in young rats a form of diabetes which leads to death at a high level of hyperglycemia or the sugar level declines to normal in a few days if the animal survives. If the diabetic rats are transferred to a diet rich in carbohydrates, a rise in hyperglycemia and even death usually take place; transfer of rats to a carbohydrate-poor diet reduces or eliminates hyperglycemia. G. M. Kosolapoff

GUGLIN, E.R.; DANILEVICH, G.V.

Effect of age on the development and course of alloxan diabetes in rats. Fiziol. zhur. 42 no.5:383-388 My '56. (MIRA 9:11)

1. Laboratoriya nervnoy regulyatsii endokrinnykh funktsii Instituta fiziologii im. I.P.Pavlova AN SSSR i Fakul'tetskaya terapevticheskaya klinika I Leningradskogo meditsinskogo instituta im akad. I.P.Pavlova, Leningrad.

(DIABETES MELLITUS, exper.
eff. of age in rats)
(AGING, physiol.
age factor in exper. diabetes in rats)

GUGLIN, E.R., kand.med. nauk (Stalingrad)

"Practical manual on drug therapy in internal diseases" by B.I. Lidskii. Reviewed by E.R. Guglin. Klin.med. 37 no.2:155-158 F '59. (MIRA 12:3)

(PHARMACOLOGY)
(MEDICINE, INTERNAL)
(LIDSKII, B.I.)

VITUSHINSKIY, V.I., prof.; GUGLIN, E.R., kand.med.nauk; NEDOGODA, V.V.

Posttraumatic chronic aneurysm of the heart. Kaz.med.zhur. no.5: 59-60 S-O '60. (MIRA 13:11)

1. Iz kafedr propedevticheskoy terapii (zav. - prof. I.V.Zherdin) i patologicheskoy anatomii (zav. - prof. V.I.Vitushinskiy Stalingradskogo meditsinskogo instituta i Stalingradskoy oblastnoy klinicheskoy bol'nitsy (glavvrach - A.I.Gusev).

(ANEURYSMS)
(HEART--DISEASES)

GUGLIN, E.R., kand.meditsinskikh nauk

Analysis of basic indexes in peptic ulcer. Zdrav. Ros. Feder. 4 no.8: 8-12 Ag '60. (MIRA 13:9)

1. Glavnyy terapevt Stalingradskoy oblasti.
(STALINGRAD PROVINCE—PEPTIC ULCER)

GUGLIN, E.R., kand.med.nauk (Stalingrad)

Concerning the article of Professors V.I.Katerov, and R.Kh.Burnasheva "Pathogenetic therapy and prevention of hypertension in a new light" published in "Kazanskii Meditsinskii Zhurnal," No.6, 1959. Kaz.med. zhur. no.5:119-121 S-O '60. (MIRA 13:11)

(HYPERTENSION)
(KATERCV, V.I.)
(BURNASHEVA, R.Kh.)

GUGLIN, E. R., kand. med. nauk; NEDOGODA, V. V. (Stalingrad)

Diuretic test in the functional diagnosis of chronic liver diseases. Klin. med. no.6:70-73 '61. (MIRA 14:12)

1. Iz kafedry propedevticheskoy terapii (zav. - prof. I. V. Zherdin) Stalingradskogo meditsinskogo instituta (dir. - prof. V. S. Yurov) i Stalingradskogo oblzdravotdela (zav. - zasluzhennyy vrach RSFSR i I. P. Grigorenko)

(LIVER--DISEASES)

GUGLIN, E.R., kand.med.nauk (Stalingrad)

Evaluation of some indexes in rheumatic fever; discussion on I.L. Pshetakovskii's article, "Rheumatic fever in Odessa Province and results of its control during 1958-1959." Terap.arkh. 33 no.11:100-103 '61. (MIRA 15:5)

(ODESSA PROVINCE--RHEUMATIC FEVER)
(PSHETAKOVSKII, I.L.)

GUGLIN, E.R., kand.med.nauk; NEDOGODA, V.V. (Stalingrad)

Thrombosis of the superior vena cava. Klin.med. 39 no.5:140-141 My '61. (MIRA 14:5)

1. Iz kafedry propedevticheskoy terapii (zav. - prof. I.V. Zherdin) Stalingradskogo meditsinskogo instituta (dir. - prof. V.S. Yurov) i Stalingradskoy oblastnoy klinicheskoy bol'nitsy (glavnyy vrach A.I. Gusev).
(THROMBOSIS) (VENA CAVA—DISEASES)

GUGLIN, E.R., kand. med. nauk

Role of variational - statistical analysis in a clinical
study. Klin. med. 40 no.11:142-144 N'62 (MIRA 16:12)

GUGLIN, E.R.; NAYMAN, L.I. (Volgograd)

Changes in the leucocyte count in the blood of healthy people. Probl. gemat. i perel. krovi 8 no.7:29-32 Jl '63. (MIRA 17:10)

GUGLIN, E.R. (Volgograd, Komsomol'skaya, d.10, kv.122); MITIN, A.A. (Volgograd, Karpovskaya, 46).

Subtotal resection of the stomach for cancer associated with complete atrioventricular block. Vop. onk. 9 no.12:75-76 '63. (MIRA 17:12)

1. Iz khirurgicheskogo otdeleniya (ved. khir. V.V. Shcheglov) Volgogradskogo oblastnogo onkologicheskogo dispansera (glav. vrach - zasluzhennyy vrach RSFSR K.M. Petrov).

GUGLIN, E.R., kand. med. nauk (Volgograd)

Recording and analysis of myocardial infarct. Terap. arkh.
35 no.5:97-100 My'63 (MIRA 16:12)

ACC NR: AP6035741 (A,N) SOURCE CODE: UR/0413/66/000/019/0103/0103

INVENTOR: Yevtushenko, I. N.; Tolkachev, V. Yu.; Guglin, I. N.; Privalov, L. N.

ORG: none

TITLE: Decorder of parallel bipolar binary code for remote control systems. Class 42, No. 186769

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 103

TOPIC TAGS: digital decoder, telemetry equipment, telemetry receiver, BINARY CODE, MAGNETIC CORE.

ABSTRACT: A parallel bipolar binary code decoder which is based on magnetic cores and uses transistor/magnetic gating is described. Two-cycle transistor/magnetic gates have been added to control code reception in the decoder writing circuits. These are connected in series to the primary of a current control transformer: a code reception control unit is connected to the control transformer's secondary. Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 12Nov64/

Card 1/1 UDC: 681.142:621.867:621.398

GUGLIN, I.N.

Device for shaping binary two-polar code in punched-card reading.
Avtom. i prib. no.2:26-28 Ap-Je '65. (MIRA 18:7)

L 63664-65 EWT(d)/T/EED-2/EWP(1) IJP(c) BB/GG

ACCESSION NR: AP5016085

UR/0302/65/000/002/0026/0028

142.177.8

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12

B

AUTHOR: Guglin, I. N.

TITLE: Device for shaping a binary bipolar code out of signals read from marked punchcards

SOURCE: Avtomatika i priborostroyeniye, no. 2, 1965, 26-28

TOPIC TAGS: binary code 16 shaper, code shaper

ABSTRACT: The binary-bipolar coder comprises a preamplifier, a 4-ferrite-ring encoder, logical elements, and bipolar-pulse shapers. These characteristics are given: minimum input, 3 v; minimum input-pulse duration, 5 µsec; input-pulse rise time, 2 µsec; tolerable variation in the input-pulse sequence, 0.3 sec; output-pulse duration, 500 µsec; output-pulse rise time, 30 µsec; collector-voltage supply, 12 ± 3 v; bias-voltage supply, 1.4 ± 0.3 v; working temperature range, -60+50C; output resistance, 50 ohms; power consumption, 12 w. The

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ACCESSION NR: AP5016085

coder whose principal circuit is given and operation explained is intended for processing the information read out of manually-marked punchcards. Orig. art. has: 1 figure, 3 formulas, and 1 table.

ASSOCIATION: Zaporozhskiy filial instituta avtomatiki (Zaporozh'ye Branch, Institue of Automatics)

SUBMITTED: 00 ENCL: 00 SUB CODE: DP

NO REF SOV: 002 OTHER: 000

Card 2/2

Guglin, N.N.

PHASE I BOOK EXPLOITATION SOV/4343

Soveshchaniye po teorii liteynykh protsessov, 3d

Usadochnyye protsessy v metallakh; trudy soveshchaniya (Shrinkage Processes in Metals; Transactions of the Third Conference on the Theory of Casting Processes) Moscow, AN SSSR, 1960. 281 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya.

Resp. Ed.: B.B. Gulyayev, Doctor of Technical Sciences, Professor; Ed. of Publishing House: V.S. Rzheznikov; Tech. Ed.: T.V. Polyakova.

PURPOSE: This collection of articles is intended for scientific workers, engineers, technicians of scientific research institutes and industrial plants, and for faculty members of schools of higher education.

COVERAGE: The collection contains technical papers presented at the Third Conference on the Theory of Casting Processes, organized by Liteynaya sektsiya Komissii po tekhnologii mashinostroyeniya Instituta mashinovedeniya AN SSSR (Casting Section of the Commission for Machine-Building Technology of the Institute of Science of Machines, Academy of Sciences USSR) and by Institut metallurgii imeni Baykova AN SSSR (Institute of Metallurgy imeni A.A. Baykov, Academy of Sciences USSR). The most serious defects in castings, ingots, and welds as a result of metal shrinkage are reviewed. Factors contributing to the formation of shrinkage cavities, porosity, cracks, fissures, distortion, and internal stresses are analyzed along with measures taken to prevent and remedy them. The hydrodynamics of molten metals and the process of solidification of metals are discussed. Also presented are resolutions adopted at the Conference with regard to the problem of shrinkage in metals. No personalities are mentioned. Most papers are accompanied by bibliographic references, the majority of which are Soviet.

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III. CRACKS IN CASTINGS AND WELDED JOINTS

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(26)

Guglin, N. N.

PHASE I BOOK EXPLOITATION SOV/4344

Soveshchaniye po teorii liteynykh protsessov, 4th

Kristallizatsiya metallov; trudy soveshchaniya (Crystallization of Metals; Transactions of the Fourth Conference on the Theory of Casting Processes) Moscow, Izd-vo AN SSSR, 1960. 325 p. 3,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya.

Resp. Ed.: B. B. Gulyayev, Doctor of Technical Sciences, Professor; Ed. of Publishing House: V. S. Rzheznikov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This book is intended for metallurgists and scientific workers. It may also be useful to technical personnel at foundries.

COVERAGE: The book contains the transactions of the Fourth Conference (1958) on the Theory of Casting Processes. [The previous 3 conferences dealt with hydrodynamics of molten metals (1955), solidification of metals (1956), and shrinkage processes in castings (1957)]. General problems in the crystallization of metals, including the crystallization of constructional steels, alloy steels with special properties, cast iron, and of nonferrous alloys, are discussed. Recognition is given to D. K. Chernov and N. T. Gudtsov and their students, B. B. Gulyayev and A. G. Spasskiy, for their contributions to the understanding of the basic problems involved in the theory of crystallization of ferrous and nonferrous metals and alloys. Academician A. V. Shubnikov is also mentioned in connection with his work on the planning of research on crystal formation. References accompany several of the articles.

Magnitskiy, O. N., A. A. Demidova, and B. B. Gulyayev. Influence of Alloy Composition on Conditions of the Primary Crystallization of Castings 49

Kamenetskaya, D. S., I. P. Rakhmanova, and Ye. Z. Spektor. Investigation of the Crystallization of Iron and Its Alloys 57

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II. CRYSTALLIZATION OF CONSTRUCTIONAL STEEL

Lapitskiy, V. I., V. M. Lugin, A. I. Marinov, O. N. Oyks, V. V. Oleksenko, V. I. Orlov, K. P. Rudichev, and N. I. Stupar'. Some Ways of Lowering the Heterogeneity of Large Ingots of Rimmed Steel 100

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In'shakov, N. N. Influence of the Characteristic Features of Crystallization on the Mechanical Properties of Low-Alloy Cast Steel 150

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[illegible], N. N. and [illegible], [illegible].

"An Investigation of the Processes of Interaction between the Nucleator and the System of Secondary Cooling and the Billet in Continuous Casting"

report presented at the 7th Conference on the Interaction of the Casting Mould and the Casting, sponsored by the Inst. of Mechanical Engineering, Acad. Sci. USSR, 25-28 January 1961

27931S/133/61/000/009/008/011
A054/A127

1.1500

AUTHORS: Guglin, N. N., Gulyayev, B. B.

TITLE: Investigating the factors determining the formation of hot cracks in steel ingots and castings

PERIODICAL: Stal'$^{21}_{4}$, no. 9, 1961, 830 - 836

TEXT: The continuous casting process is often handicapped by the formation of hot cracks in the ingot. Their formation is closely related to the strength and the ductility of the metal at temperatures near the freezing range and also to the degree of shrinkage that takes place in the ingot. Tests were carried out to study these characteristics, their dependence on the carbon, sulfur and phosphor content of the metal, the pouring temperature and the reduction process. The strength and the ductility of the steel at temperatures approaching the freezing range and the shrinkage of the specimens were investigated on an installation designed especially for this purpose which is described by the authors. It was found, with regard to the carbon content of the metal, that a pronounced tendency to the formation of external, longitudinal cracks is characteristic of steels containing 0.16 - 0.18% carbon and having a low ductility. The tests referring

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Investigating the factors determining the...

to the dependence of the metal on temperature (with various carbon-content) showed that in the 1,450 - 1,320°C temperature range the 35Л (35L) grade steel possesses the greatest strength, whereas the least strength was found in chrome-nickel-copper steel alloys. The grades tested had the following strength limits at the highest (1,450°C) temperature (at which cracking of the solidifying skin is most likely to take place):

35Л (35L)	30ХНМ(30KhNM)	28ХГСН(28KhGSN)	30ХНД(30KhND)	40ХС(40KhS)	Г13(G13
3	6	4	3	2	1

(kg/cm^2)

When the test temperature was lowered to 1,350°C the strength of the steels increased insignificantly; when the temperature dropped further, (below 1,350°C), the increase in strength became more pronounced. 1,350°C is therefore a critical temperature for the formation of hot cracks showing a characteristical intercrystalline fracture surface. An intercrystalline film which forms at this temperature determines the formation of fissures. Below 1,350°C this liquid film disappears and this results in a sudden increase in strength. The different degrees of strength in steels containing various alloying elements depends obviously on the effects of these elements and on the behavior and composition of this inter-

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crystalline film. The tests showed that in the critical 1,450 - 1,350°C range, alloyed steels have a lower ductility than carbon steels. This explains the tendency of most alloyed steels to crack formation, while, in addition, they are lower in strength. The interrelation between strength characteristics and relative elongation of alloy steels (G13, 40KhS, 28KhGSN) is also less favorable than that of 35L steel. To study the effect of the carbon content on shrinkage and extension tests were carried out with ferro-carbon alloys on an armco iron base to which pig iron or graphite was added. Maximum shrinkage was found in alloys with a carbon content between 0.18 and 1%, whereas in alloys with a carbon content of 1.3 - 5.0% elongations between 0 - 0.3% were observed. Investigating steels with the same carbon content for shrinkage, it was found that minimum free shrinkage takes place in 35L steel. In the critical temperature range shrinkage in carbon steels is generally about half that of chrome-nickel-molybdenum alloys and this is also one of the causes of hot cracking in these alloys. In fact, the greater the number of alloying elements, the greater the tendency to cracking. The effect of the phosphorus and sulfur content on the strength of 35L steel was also investigated. The strength of this steel decreases suddenly (from 15 to 7.5 kg/cm^2) when the sulfur content exceeded 0.025%. The effect of the pouring temperature on the strength of 35L steel was tested at 1,510, 1,540 and 1,570°C with overheating over the liq-

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uidus line by 30, 60 and 90° respectively. The increase in metal temperature during pouring results in a strength reduction. The authors investigated the effect of reducing methods and of adding rare-earth elements to the metal on its strength characteristics when the freezing point is almost attained on chrome-nickel-molybdenum steel with a 0.30% carbon content, while the kind and amount of additives varied. The following reducing processes were studied:

Variants:	II	III	IV	V	VI	VII
Calcium silicon (the % value according to Ca)	0.10	0.05	0.05	0.04	-	0.10
Aluminum	-	0.02	0.02	0.04	0.07	0.07
Ferrocerium	0.2	-	0.3	-	-	0.3

The best results were obtained with variants IV and VII, which ensure the optimum combination of strength and ductility of the metal in the critical temperature range of crack formation. Thus, when chrome-nickel-molybdenum steel is reduced by aluminum alone, usually cracks appear in the ingot. When, however, reduction takes place according to the optimum variants, no cracks are formed. There are 13 figures and 6 references: 5 Soviet-bloc, 1 non-Soviet-bloc in Russian translation.

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GUGLIN, N.N.; PROVORNYY, A.K.; ZASETSKIY, G.F.; GULYAYEV, B.B.

Manufacture of shaped steel ingots by continuous casting.
Stal' 21 no.10:895-899 O '61. (MIRA 14:10)
(Continuous casting)
(Steel ingots)

28960

9.6100 (1057, 1139)

S/146/61/004/003/009/013
D217/D301

AUTHOR: Guglina, I.G.

TITLE: Complex synthesis of mechanism of certain diaphragm instruments

PERIODICAL: Izvestiya vysshikh uchebnykh zavedniy. Priborostroyeniye, v. 4, no. 3, 1961, 95 - 102

TEXT: The requirements for increased accuracy of modern diaphragm instruments as used in measuring pressure and as parts of navigational systems are becoming rather urgent and in the present article the author analyzes an approximate kinematic synthesis of such a mechanism. The mechanism consists of a pressure sensitive diaphragm as sensing device, in the shape of a box with corrugated diaphram and of a transducer in the shape of a flat articulated link. The problem is set as that of simultaneous determination of parameters of the membrane and of the transducer. Using the notation of Fig. 1, giving the diagram of the mechanism, the parame-

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Complex synthesis of mechanism ...

ters to be determined are given by

$$y;\ z;\ u;\ \frac{A}{l};\ \frac{B}{l};\ \frac{C}{l};\ m.$$

where y, z, u are given by

$$\frac{r}{l}=x;\ \frac{r^2}{l^2}=x^2=y;$$

$$\frac{rd}{l^2}=z;\ \frac{d^2}{2l^2}+\frac{s}{l}=u.$$

m - is the coefficient of proportionality and A, B and C are constants. They may be determined by solving the corresponding system of linear equations for a chosen number of interpolation points. This choice is rather difficult. It is assumed that the graphical method suggested by E.P. Novodvorskiy (Ref. 1: Ob odnom sposobe sinteza mekhanizmov (A Method of Mechanisms Synthesis), Trudy AN SSSR, Seminar po teorii mashin i mekhanizmov 1951, XL, no. 42) is actually the best. All parameters of

$$y;\ z;\ u;\ \frac{A}{l};\ \frac{B}{l};\ \frac{C}{l};\ m$$

except m are determined form the system of equations for the first six interpolation points. For the mechanism shown in Fig. 1

$$\frac{r}{l}=x;\ \ \frac{d}{l}=\frac{z}{x};\ \ \frac{S}{l}=u-\frac{1}{2}\left(\frac{z}{x}\right)^2.$$

and if the parameters are given, the initial position of the rocking shaft can be found from

$$\begin{cases} r\sin\alpha_0+l\sin\beta_0=S \\ r\cos\alpha_0=l\cos\beta_0+d; \end{cases}$$

$$\sin\alpha_0=\frac{-F\frac{S}{l}\pm\sqrt{\left(F\cdot\frac{S}{l}\right)^2-\left(\frac{d^2}{l^2}+\frac{S^2}{l^2}\right)\cdot\left(F^2-\frac{d^2}{l^2}\right)}}{\left(\frac{d}{l}\right)^2+\left(\frac{S}{l}\right)^2},$$

where

$$F=\frac{1-\left(\frac{S}{l}\right)^2-\left(\frac{d}{l}\right)^2}{2\frac{r}{l}},$$

The parameters of the membrane are found independently of the linkage mechanism and the problem is reduced to determining the relation between A, B and C and the coefficients A_1 and C_1 in the formula used which is that given by L.E. Andreyeva for designing corrugated membrane with an arbitrary periodical form of corrugations (Ref. 4: Metody rasheta manometricheskikh uprugikh elementov (Methods of Designing Resilient Manometric Components), 1956). This formula is

$$p=A_1w+C_1w^3, \quad (5)$$

where

$$A_1=\frac{2(3+\beta)(1+\beta)Eh^3}{3k\left(1-\frac{\mu^2}{\beta^2}\right)R^4}; \quad (6)$$

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and

$$C_1 = \frac{32kEh}{(m^2-9)R^4}\left[\frac{1}{6} - \frac{3-\mu}{(m-\mu)\cdot(m+3)}\right]. \qquad (7)$$

In the above formulae R - radius of the membrane; p - pressure; E - modulus of elasticity of the membrane material; h - thickness; w - depression of the membrane at the center; μ - Poisson coefficient; $\beta = \sqrt{k \cdot k_t}$; $m = \sqrt{k \cdot k_2}$; k, k_t, k_r - geometrical factors depending on the type of corrugation and given in the work by L.E. Andreyeva(Ref. 4: Op.cit.). It is stated in conclusion that the problem could also be solved by using the r.m.s. approximation method. There are 1 figure and 4 Soviet-bloc references.

ASSOCIATION: Leningradskiy krasnoznamennaya voyenno-inzhinernaya akademiya im. A.F. Mozhayskogo (Leningrad of the Red Banner Military Engineering Academy im. A.F. Mozhayskiy)

SUBMITTED: May 17, 1960

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STARZHINSKIY, Vyacheslav Mikhaylovich; GUGLINA, L.A., red.

[Dynamics] Dinamika. Moskva, Vses. zaochnyi in-t tekstil'. i legkoi promyshl., 1965. 229 p. (MIRA 18:11)

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Potentiometric determination of chloride ion without silver nitrate. D. A. Vyakhirev and S. A. Gagina (State Univ., Gorki). *Zavodskaya Lab.* 15, 1426-30(1949). Cl can be detd. by potentiometric titration with $Hg(NO_3)_2$ to the potential at the equivalence point of 242 mv. relative to the HgCl electrode. A quinhydrone electrode of equiv. potential can be used instead of the calomel electrode in a null-point method. G. M. Kosolapoff

GUGLINA, S. A.

Volumetric-chromatographic method of gas analysis. D. A. Vyakhirev, A. I. Bruk, and S. A. Guglina (State Univ., Gorki). *Doklady Akad. Nauk S.S.S.R.* 90, 677-9(1953).—A method of gas analysis based on the exptl. fact that desorption is selective (cf. Zhukovskii, *et al.* *C.A.* 46, 11011*b*) was developed and tested on mixts. of C_2H_4 (78.8%) + C_2H_6 (7.2%) adsorbed by SiO_2 gel at 21.4°. The app. consisted of a water-jacketted adsorption-desorption column and a nitrometer-type buret connected so that the latter could be by-passed during adsorption and placed in series during desorption. The gas mixt. with CO_2 as a carrier is passed through the adsorption column previously swept out with CO_2. During the desorption cycle a known vol. *v* of CO_2 is passed (50 ml./min.) through the column and the exit gases bubbled through 35% KOH in the buret. The vol. *q* of gases not absorbed by the KOH is accumulated. The plot *q* vs. *v* is a continuous curve with a series of vertical sections q_1, q_2 ...., corresponding to the vol. of a constituent in the gas mixt., and horizontal sections $v_1 - v_2$, ... The distances between v_1 and v_2, etc., indicate the completeness of the selective desorption. This is also obtained by a *c* vs. *v* curve, where *c* equals the percentage of each constituent in the CO_2 stream, is derived from the *q* vs. *v* curve since $c = dq/dv$.

I. Bencowitz

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GUGLINA, S.A

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5716. ANALYSIS OF MIXTURES OF GASEOUS HYDROCARBONS BY A VOLUMETRIC-CHROMATOGRAPHIC METHOD. Vyakhirev, D.A., Bruk, A.I. and Guglina, S.A. (Zavod. Lab. (Fact. Lab., Moscow), 1954, vol. 20, (7), 805-807; abstr. in Ref. Zh. Khim. (Ref. J. Chem., Moscow), 1955, (11), [illegible]). There are two variations of the method: a simple development in the analysis of a two-component system (ethane and propane), and chromatothermography for a three-component mixture of ethylene, propylene and butylenes. Both are described. The latter takes about 1 h.

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GUGLINA S. A

Volumetric chromatographic method of analysis of mixtures of hydrocarbon gases. D. A. Vyakhirev, A. I. Bruk, and S. A. Guglina (State Univ., Gor'kii). *Trudy Komissii Anal. Khim., Akad. Nauk S.S.S.R., Inst. Geokhim. i Anal. Khim.* 6, 237-45(1955); cf. C.A. 48, 12603i; 49, 13833i; Stoffan, Analiz gazov [illegible] (Unconsolidat) 1933.—Combustion app. for checking the chromatographic results is connected to the chromatographic app. C_2H_6 and C_2H_4 are sepd. in a jacketed silica-gel column kept at 15 ± 0.5°. C_3H_8, C_3H_6, C_4H_{10}, C_4H_8, and the sum of isomers of C_4H_8 are sepd. in a silica-gel column which has a moving heater. Both columns are connected to a Dumas azotometer gas buret contg. 30% KOH. Very pure CO_2 is used for sweeping out the app. and desorbing components. Changes in the vol. of gas (brought to atm. pressure in the buret) are plotted vs. time, to produce a curve with steps which can be measured. Correction must be made for the vol. of impurities in the CO_2. Data are given for 5 air-C_2H_4 mixts. and 6 air-C_3H_6 mixts. Relative error of the volumetric-chromatographic method, compared to combustion method, for C_2H_6 was 0.2-4.7%; relative error for C_2H_4 compared to Br-H_2O absorption method, was 0-2%.

Burilla Mayerle

Sci Res Inst Chemistry

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GUGLIY, I.V.

Concerning the calculation of long-term regulation of stream flow considering the correlation of the flow of consecutive years. Probl.reg.rech.stoka no.8:37-54 '59.
(MIRA 13:4)

(Reservoirs)

S/032/63/029/004/007/016
A004/A127

AUTHORS: Guglya, V.G., Chiang P'eng-Ch'ei, Bokshteyn, B.S., Zhukovitskiy, A.A.

TITLE: On the practicability of the Müller relation for the reflection of β-particles from synthetic mixtures.

PERIODICAL: Zavodskaya laboratoriya, no. 4, 1963, 449 - 453

TEXT: The detailed investigations carried out by Müller (Anal. Chem., 29, 6, 969, 1957) on reflections from a great number of chemical compounds revealed that this reflection is determined by some mean charge $\bar{Z}$. The authors conducted investigations to further elucidate the factors determining the reflection from multicomponent systems. It is shown that the intensity of β-radiation reflection is determined by the mean charge of the chemical compound or mechanical mixture; therefore, an analysis of multicomponent systems as to the content of some or even one of the constituents is impossible under general conditions. Moreover, it was found that the intensity of the reflected radiation depends also on the fractionating composition of the powder. The authors describe their tests in detail, which

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were carried out with the powders of pure metals, chemical compounds and synthetic binary and ternary mechanical mixtures. They point out that only for systems of micro-nonhomogeneity it is possible to determine the composition of multicomponent systems using the method described. There are 5 figures and 4 tables.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

Card 2/2

GUGLYA, V.G.; TSZYAN PEN-CHEY; ZHUKHOVITSKIY, A.A.

Accuracy of analysis of ores by the reflection method. Zav.lab. 29 no.5:579-580 '63. (MIRA 16:5)

1. Moskovskiy institut stali i splavov.
(Mineralogy, Determinative) (Beta rays)

GUGLYA, V.G.

Possibilities and limitations of analysis by the method of β-radiation reflection, a survey. Zhur. anal. khim. 19 no.8: 1002-1011 '64. (MIRA 17:11)

1. Moskovskiy institut stali i splavov.

L 23407-65 EWG(j)/EWT(m)/EWP(e)/EPF(c)/EPR/EWP(t)/EWP(b) Pr-4/Ps-4 IJP(c)
JD/WW/WH
ACCESSION NR: AP4049927 S/0020/64/159/003/0632/0635
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B

AUTHOR: Glazunov, P. Ya.; Guglya, V. G.

TITLE: Reflection of monoenergetic electrons with energies in the range of 600 - 1200 keV by certain metals and graphite 15

SOURCE: AN SSSR. Doklady*, v. 159, no. 3, 1964, 632-635

TOPIC TAGS: electron bombardment, electron reflection, reflection factor, aluminum target, zinc target, tin target, lead target, graphite target, nuclear charge

ABSTRACT: The authors measured the reflection factors of 600-1200 keV electrons reflected off aluminum, zinc, tin, lead, and carbon (not less than 99.8% pure). 14 The scattering chamber used is described. The pressure in the chamber was 10^{-4} - 5×10^{-5} mm Hg, so that the ion current was eliminated. The reflection factor is defined as the ratio of the collector current (I_{coll}) to the primary current, $\eta = \frac{I_{coll}}{I_s + I_{coll}}$, the primary current being the sum of the sample current

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